THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT J. KRAFT and ROBERT J. McCLELLAND

Appeal No. 97-2228
Application 08/509,259[1]

ON BRIEF

Before STAAB, McQUADE and NASE, Administrative Patent Judges.

McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

This appeal is from the final rejection of claims 1 through 12, all of the claims pending in the application.[2]

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[1] Application for patent filed July 31, 1995.

[2] The record in the instant application indicates that subsequent to the final rejection, which is dated May 15, 1996 (Paper No. 6), the appellants filed a request for reconsideration on July 19, 1996 (Paper No. 7), a petition/fee for a one month extension of time and an appeal brief on September 23, 1996 (Paper Nos. 9 and 10), and a notice of appeal on October 18, 1996

The invention relates to a turbine engine rotor blade having a vibration damper. Claim 1 is illustrative and reads as follows:

1. A rotor blade for a rotor assembly having a disk, comprising:

a root, for securing said blade to the disk;

an airfoil, having a base, a tip, and at least one cavity within said airfoil;

a platform, extending laterally outward from said blade between said root and said airfoil, said platform having an airfoil side and a root side, and an aperture extending between said root side of said platform and said cavity; and

a damper;

wherein said damper is received within said aperture and said cavity; and

wherein friction between said damper and a surface within said cavity damps vibration of said blade.

(Paper No. 11). The rather unusual step of filing the brief prior to the notice of appeal is of no moment since the brief itself would appear to meet the substantive requirements for a notice of appeal (37 CFR § 1.191) and because the appropriate fee for both a notice of appeal and a brief have been paid. The only concern is whether the aforementioned petition/fee for a one month extension of time (Paper No. 9) should have been for a two month extension of time to render timely the filing of the brief (i.e, the notice of appeal). This matter should be resolved upon return of the application file to the examiner.

The references relied upon by the examiner as evidence of anticipation and obviousness are:

Parkes	4,162,136	Jul. 24, 1979
Rimkunas et al. (Rimkunas)	5,407,321	Apr. 18, 1995 (filed Nov. 29, 1993)

Claims 1 through 4 and 10 through 12 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Rimkunas, and claims 5 through 9 stand rejected under 35 U.S.C. § 103 as being unpatentable over Rimkunas in view of Parkes.

Reference is made to the appellants' brief (Paper No. 10) and to the examiner's answer (Paper No. 14) for the respective positions of the appellants and the examiner with regard to the merits of these rejections.

Turning first to the standing 35 U.S.C. § 102(e) rejection, anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984).

Rimkunas discloses an airfoil vibration damper. Although the damper is specifically described for use with hollow stator vane airfoils disposed in the compressor section of a gas turbine engine, Rimkunas indicates that the damper can be utilized in

other types of hollow airfoils which are subject to vibration (see column 3, lines 19 through 26). As summarized by Rimkunas,

> [d]amping for the airfoils of stator vanes is provided by a spring damper formed from an elongated spring element bent into a "U" or "V" shape in cross section and oriented in the hollow of the airfoil so that the legs of the "U" or "V" frictionally engage the inner surfaces of the opposing pressure side and suction side walls of the airfoil to dissipate the vibratory energy. The elongated spring element is inserted through a hole formed on one end of the airfoil to extend just short of one of the ends of the airfoil to form a cantilevered mounted spring [Abstract].

Figures 2, 4 and 5 show that the spring damper 39 or 70 is received within an internal airfoil cavity via a hole or aperture 60 or 82 formed or cut in the base of the airfoil (see column 3, line 59 through column 4, line 59).

Claims 1 and 12, the two independent claims on appeal, recite a rotor blade comprising, inter alia, a platform extending laterally outward from the blade between its root and airfoil, and an aperture extending between the root side of the platform and a cavity within the airfoil for receiving a damper.[3] The appellants' position that Rimkunas does not disclose such structure (see pages 3 through 5 in the brief) is well taken.

[3] The term "said surface within said cavity" in the last clause of claim 12 lacks a proper antecedent basis, an informality which is deserving of correction in the event of further prosecution before the examiner.

To begin with, Rimkunas does not expressly describe any of the blades disclosed therein as having a platform. The examiner's assertion that a particular line of demarcation shown in Figure 1 of the reference is the side view of a platform (see page 5 in the answer) lacks factual support and is unduly speculative. The related contention that "[i]t is generally understood and universally accepted that all turbine engine blades have a platform at the base ends of the blades" (answer, page 5) also lacks factual support and indeed is refuted by Rimkunas (see Figure 4) and by various other prior art references of record in the application.

Moreover, even if Rimkunas did disclose a blade having a platform extending laterally outward therefrom between its root and airfoil, this reference lacks any teaching of an aperture extending between the root side of such platform and a cavity within the airfoil as recited in claims 1 and 12. The examiner's reliance on the aperture or hole 60 shown in Rimkunas' Figure 4 to meet this limitation (see page 5 in the answer) is unsound because hole 60 extends between the base or root side of the airfoil and the cavity within the airfoil rather than between the root side of any platform extending laterally outward from the blade between its root and airfoil and the cavity.

Thus, Rimkunas does not disclose, expressly or under principles of inherency, each and every element of the rotor blade recited in independent claims 1 and 12. Accordingly, we shall not sustain the standing 35 U.S.C. § 102(e) rejection of these claims or of claims 2 through 4, 10 and 11 which depend from claim 1.

The combined disclosures of Rimkunas and Parkes also fail to teach, and would not have suggested, a rotor blade having the foregoing features recited in claim 1. Therefore, we shall not sustain the standing 35 U.S.C. § 103 rejection of claims 5 through 9, which depend from claim 1, as being unpatentable over Rimkunas in view of Parkes.

The decision of the examiner is reversed.

REVERSED

LAWRENCE J. STAAB Administrative Patent Judge	)	
JOHN P. McQUADE Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)	

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